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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,992	12/31/2003	Wayne Soderfelt		9970

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EXAMINER

TUPPER, ROBERT S

ART UNIT PAPER NUMBER

2652

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/749,992	Applicant(s) SODERFELT ET AL.	
	Examiner Robert S. Tupper	Art Unit 2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 12 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, on lines 1-2 "said one of the recesses" has no antecedent basis.

In claim 18, on line 2, "the dent" has no antecedent basis.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 10, 11, and 14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by BROWN (4,491,888).

Note figures 1-3. BROWN shows a disk drive with a base plate (12), a spindle motor (92) with rotor (94) and stator (96) including flange (32), a disk stack (D1-D3) mounted on the rotor, a head stack with a head positioner assembly (26) having a plurality of arms (72) and heads (74), and a damper (102, 104) positioned between the head stack and the base plate. A second damper (100) is positioned between the flange

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of the motor and the base plate (re claim 11). The flange of the motor and the damper have a plurality of holes (not numbered) for fasteners (see figure 3).

Note that the recitation of "spaces" in claim 10 reads on areas of a flat base plate.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over BROWN et al (4,491,888).

BROWN et al shows a disk drive with dampers substantially as claimed.

BROWN et al differs in not: (A) showing a laminated stator (re claim 15), and (B) showing an annular magnet around the stator (re claim 16).

The Examiner takes OFFICIAL NOTICE that it is well known to configure spindle motor stators with laminations encircled by an annular magnet.

Concerning both (A) and (B), it would have been obvious to one of ordinary skill in the art at the time the invention was made configure the motor with laminations and an annular magnet. The motivation is as follows: this is a well known and commonly used spindle motor configuration.

6. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over CHEE et al (6,256,173) combined with JEONG et al (5,602,697).

CHEE et al shows a (see figures 1-4) disk drive with a head stack (108) having a plurality of arms (132,134) supporting a plurality of heads (140). The head stack is located in a recess (188) in the base plate (110), and has a damper (176) in the recess between the head stack and base plate (re claims 2, 10, 13, and 19). The damper and base plate have a central hole receiving a screw projecting through the head stack for securing it to the base plate (re claims 8, 9, 17, and 18 - see figures 3 and 4). Note concerning claims 13 and 18, the recitation of a "space" reads on a flat surface, and the "dent" thus reads on a simple recess. CHEE et al does not show any details for the spindle motor.

JEONG et al shows (see figures 4-6) a disk drive with a spindle motor (20) having a flange (22). The spindle motor is located in a stepped recess (14,16) in the base plate (10), and has a damper (26) in the recess between the flange and the base plate (re claims 1, 3, 11, 12, and 19). The damper and flange have a plurality of holes (24,28) receiving fixing screws (30) (re claims 5 and 14). JEONG et al does not show any details for the head actuator.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of CHEE et al and JEONG et al to provide a disk drive with damping for both the head actuator and spindle motor. The motivation is as follows: one of ordinary skill in the art would utilize any known structure

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where none was specified. Thus, where CHEE et al shows no details for the spindle motor, one of ordinary skill in the art would utilize the spindle motor shown in JEONG et al, and visa versa.

Concerning claims 6, 7, 15, and 16, JEONG et al does not show any details for the structure of the rotor and stator. The Examiner takes Official Notice that laminated stators with annular magnets are well known and commonly used. One of ordinary skill in the art would use any such known stator structure where none was specified.

Concerning claims 4, 8, and 9, CHEE et al does not show the use of a dent in the recess to locate the damper.

JEONG et al shows the use of a dent to locate the damper in a recess (see figure 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of JEONG et al to CHEE et al . The motivation is as follows: this insures proper damper placement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert S. Tupper whose telephone number is 571-272-7581. The examiner can normally be reached on Mon - Fri, 6:30 AM - 4:00 PM (first Fri off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert S Tupper
Primary Examiner
Art Unit 2652

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